



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------|-------------|----------------------|---------------------|---------------------|
| 10/088,606 | 07/17/2002 | Shusaku Okamoto | 5077-000092 | 6923 |
| 27572 | 7590 | 10/26/2005 | | EXAMINER |
| HARNESS, DICKEY & PIERCE, P.L.C. | | | | MACKOWEY, ANTHONY M |
| P.O. BOX 828 | | | ART UNIT | PAPER NUMBER |
| BLOOMFIELD HILLS, MI 48303 | | | | 2623 |

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/088,606 | OKAMOTO ET AL. |
| | Examiner Anthony Mackowey | Art Unit 2623 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 August 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 7-12 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 2-6 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 17 July 2002 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/18/02, 8/26/02
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Election/Restrictions

Claims 1 and 7-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 31, 2005.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on July 19, 2000. It is noted, however, that applicant has not filed a certified copy of the 2000-219513 application as required by 35 U.S.C. 119(b).

Specification

The abstract of the disclosure is objected to because it does not pertain to the elected species. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites “an enlargement/reduction ratio.” The current language of the claim does not distinctly identify what is meant by enlargement/reduction ratio. That is, whether the ratio meant to be an “enlargement ratio” or “reduction ratio.” An enlargement ratio that is relatively higher in a nearby area is understood as causing an object in the nearby area of the image appear relatively larger, whereas a reduction ratio that is relatively higher in the nearby area is understood as causing an object in the nearby area of the image to appear relatively smaller.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,580,373 to Ohashi.

Regarding claim 6, Ohashi discloses a monitoring system (col. 1, lines 5-10) comprising:

one or more cameras for capturing surrounding state of a vehicle (Figs 12-15, 22-25; col. 8, lines 51-67; col. 10, line 18 – col. 13, line 42, Ohashi teaches single and multiple cameras mounted on a vehicle for capturing the area around a vehicle); and

an image processing unit for receiving, as an input, a camera image of said one or more cameras and generating a synthesized image from said camera image to be displayed on a display device (Fig. 4, col. 6, lines 47-65),

wherein at least one camera out of said one or more cameras is installed to have a camera range at least including part of a tire of the vehicle (Fig. 16; col. 8, lines 60-67, Ohashi teaches the camera can capture an image of a track of the wheel.), and

said image processing unit generates, from a camera image of said at least one camera, said synthesized image in such a manner that said tire is imaged therein (Fig. 16, col. 5, lines 14-17; col. 8, lines 60-67, Ohashi teaches the displayed image includes a tire.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,580,373 to Ohashi in view of USPN 6,259,359 to Fujinami et al. (Fujinami).

Regarding claim 2, Ohashi discloses a monitoring system (col. 1, lines 5-10) comprising:

one or more cameras for capturing surrounding state of a vehicle (Figs 12-15, 22-25; col. 8, lines 51-67; col. 10, line 18 – col. 13, line 42, Ohashi teaches single and multiple cameras mounted on a vehicle for capturing the area around a vehicle); and

an image processing unit for receiving, as an input, a camera image of said one or more cameras and generating, from said camera image, a synthesized image to be displayed on a display device (Fig. 4, 24 and 25; col. 6, lines 47-65; col. 10, line 64 – col. 13, line 42),

wherein said image processing unit has a mode for displaying a synthesized image including a grounding portion of at least one tire of the vehicle (Fig. 16; col. 6, lines 3-39; col. 8, lines 60-67, The figure clearly shows a grounding portion and a tire of the vehicle.).

Fig. 16 of Ohashi clearly shows in an enlarged view of the nearby area of vehicle including a tire of the vehicle but Ohashi does not explicitly recite displaying a synthesized image in which an enlargement/reduction ratio is relatively higher in a nearby area of the vehicle including a grounding portion of at least one tire of the vehicle than in a peripheral area of the vehicle. However, Fujinami teaches vehicle monitoring system that enlarges the lower portion (nearby area) of the image (Fig. 3; col. 2, lines 51-67; col. 3, lines 34-37; col. 8, lines 12-23; col. 9, lines 35-45).

The teachings of Ohashi and Fujinami are combinable because they are both concerned with image processing and vehicle monitoring systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the system taught by Ohashi to include an enlargement/reduction ratio which is relatively higher in a nearby area of the vehicle as taught by Fujinami in order to improve visibility in the nearby area (Fujinami, col. 8, lines 12-23).

Regarding claim 3, Fujinami further teaches the enlargement/reduction ratio becomes lower in a direction from said nearby area of the vehicle to said peripheral area of the vehicle in said synthesized image (Fig. 3; col. 9, lines 35-45, Fujinami teaches continuously changing the refraction index from the upper portion to the bottom, thus portions of the upper portion (peripheral area) are enlarged less than those in the bottom (nearby area).).

Regarding claim 4, said image processing unit generates said synthesized image in such a manner that an area along a side surface of the vehicle has linearity (Fig. 16, It can be clearly seen that the displayed area along the side surface of the vehicle is straight without curving (has linearity).).

Regarding claim 5, at least one camera out of said one or more cameras is installed to have a camera range at least including part of a body side surface and part of a front tire (Fig. 16; col. 6, lines 33-39; col. 8, lines 60-67, Ohashi teaches capturing an image of the front tire. It can clearly be seen the displayed image contains part of the body side surface of the car and the front tire.), and

Said image processing unit generates, from a camera image of said at least one camera, said synthesized image in such a manner that said body side surface and said front tire are imaged therein (Fig. 16; col. 6, lines 33-39; col. 8, lines 60-67, Ohashi teaches capturing an image of the front tire. It can clearly be seen the displayed image contains part of the body side surface of the car and the front tire.).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,949,331 to Schofield is cited for teaching a plurality of cameras installed on a vehicle capturing the surrounding area of a vehicle.

USPAP 2004/0085447 to Katta et al. is cited for teaching an image display apparatus, displaying images captured by a plurality of cameras installed on a vehicle.

EP 1115250A1 is cited as the English equivalent of WO 00/07373 cited in the applicant's Information Disclosure Statement. This reference teaches a vehicle having a plurality of cameras capturing the surrounding area of a vehicle and image processing using a bowl model.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Mackowey whose telephone number is (571) 272-7425. The examiner can normally be reached on M-F 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AM
10/21/2005

JINGGE WU
PRIMARY EXAMINER